SaskPower

2000 Environment Review

The 2000 Environment Review is printed on paper that contains a minimum of 10% post-consumer recovered fibet.

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SaskPower's environmental policy *and commitment to* environmental responsibility

SaskPower is committed to protecting the environment while providing our customers with safe, reliable and cost-effective sources of electricity. To us, being environmentally responsible means using natural resources while respecting the need to preserve their potential for use by others, now and in the future. It means building and operating our facilities in a manner that will, to the greatest extent possible, conserve natural resources, maintain natural systems and preserve natural diversity. And it means anticipating and, wherever possible, preventing environmental impacts. The following principles, adopted by SaskPower's Board of Directors and communicated to all employees, confirm our commitment to improved environmental performance and pollution prevention.

- Commit to comply with environmental legislation and regulations as determined by applicable regulators, and with other corporate commitments.
- Identify, monitor and manage all significant environmental aspects associated with our operations and services.
- Ensure all employees and contractors recognize their environmental roles and responsibilities.
- Identify opportunities for continual improvement in cooperation with employees, contractors, suppliers, regulatory authorities, environmental agencies and our customers. Where opportunities arise, implement cost-effective, energy-efficient technologies and improved management practices throughout our operations and services.
- Integrate environmental considerations into capital planning and purchasing decisions.
- Implement the fundamentals of waste management: rethink, reduce, reuse, recycle and recover.
- Provide the public with an annual review of our environmental performance and environmental management programs.
- Audit our environmental performance regularly, including auditing for compliance with the ISO 14001 Standard for Environmental Management.

President's Message

It is my pleasure to present SaskPower's 2000 Environment Review – an overview of our commitment to environmental responsibility and the work that we're undertaking internally and with our business and community partners to build on that commitment as we provide our customers with safe, reliable, cost-effective electricity.

One of our significant milestones in 2000 was achieving corporate-wide ISO 14001 registration. We are the first electric utility in Canada, and the first major business headquartered in Saskatchewan, to meet the rigorous requirements for environmental management systems (EMS) as set out by the International Organization for Standardization (ISO). ISO 14001 is a global standard of excellence built on three key commitments – complying with environmental legislation, preventing pollution and continually striving to improve the EMS and SaskPower's environmental performance. Maintaining our registration and enhancing our performance will be an ongoing responsibility and challenge in the years to come.

As we enter the 21st century, a truly global issue – climate change – continues to challenge all of us. We've committed to take proactive, voluntary action as we work to balance Saskatchewan's energy needs with a sustainable environment. In fact, we were one of the first corporations to join the federal government's Voluntary Challenge and Registry (VCR) back in 1995. We have a wide range of initiatives underway, from enhancements at our power stations and research into new technologies to supporting reforestation in Saskatchewan's north and adding cogeneration projects to our generation mix.

Beginning in 2001, our generation mix will also include Saskatchewan's powerful prairie winds. Through an innovative partnership with the federal government, we'll provide a minimum of 25,000 megawatt-hours of wind power annually to federal government buildings in the province. The Government of Canada's commitment represents the largest single purchase of green power to date in Canada.

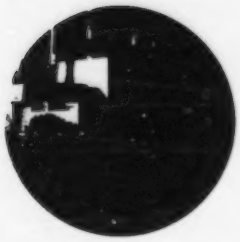
Strong, committed partnerships remain a cornerstone of our environmental commitment – vital habitat projects with Ducks Unlimited Canada, participation in the Action By Canadians (ABC) initiative, and planting projects with the caring individuals and organizations who plant and nurture hundreds of thousands of our Shand Greenhouse seedlings each year.

Each day, our employees live their hands-on commitment to the environment and I congratulate them for their spirit of continuous improvement. In the pages that follow, we share our progress.

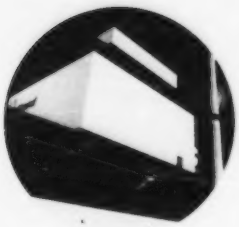
John Wright
President and CEO
SaskPower

Moving ahead

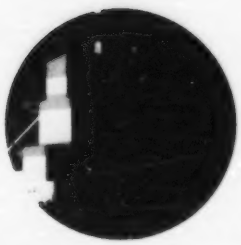
SaskPower's ISO 14001 registerable units



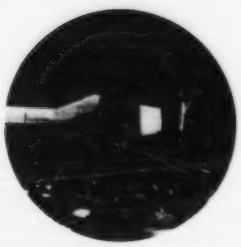
Boundary Dam Power Station ISO 14001 registered in 1999. Coal-fired electricity generation with an installed capacity of 875 MW.



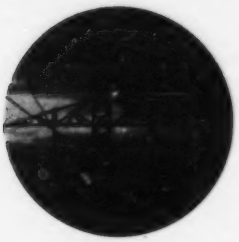
Shand Power Station ISO 14001 registered in 2000. Coal-fired electricity generation with an installed capacity of 305 MW.



Poplar River Power Station ISO 14001 registered in 2000. Coal-fired electricity generation with an installed capacity of 615 MW.

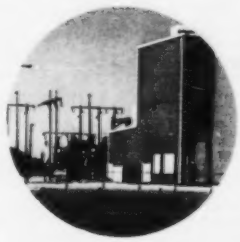


Northern Hydro ISO 14001 registered in 2000. Electricity generation at hydroelectric stations with an installed capacity of 855 MW.

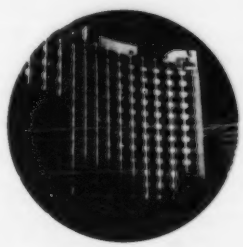


Transmission & Distribution ISO 14001 registered in 2000. Transmission and distribution of electricity throughout SaskPower's service area (526,600 square kilometres).

Fuel Supply ISO 14001 registered in 2000. Acquisition of fuel (coal, natural gas, and water) and sorbent (ground limestone), and administration of related contracts for generating stations.



Western Plants ISO 14001 registered in 2000. Natural gas-fired electricity generation with an installed capacity of 389 MW.



Corporate Support Groups ISO 14001 registered in 2000. Includes Shand Greenhouse, Customer Services, SaskPower International and other support groups.

Net generation (total generation less electrical service to power stations): 2,889 MW.

The power *of* *commitment*

Environmental responsibility is a shared commitment – a commitment by industry, communities and individuals to protect the earth for future generations. At SaskPower, we renew that commitment every day as we work to deliver safe, reliable, cost-effective electricity to the people of Saskatchewan.

With the support of our Environmental Programs group, SaskPower undertakes a wide variety of projects and partnerships to improve our environmental performance. Whether we're training our staff in the latest screening techniques, adding high-efficiency cogeneration facilities to our generating fleet, or working with planting partners to distribute our seedlings across Saskatchewan, we learn from each initiative and challenge ourselves to do more.

We challenged ourselves to meet the gold standard in environmental management – ISO 14001 – and we succeeded. In October 2000, after three years of hard work by employees across the corporation, SaskPower became the first utility in Canada and first major business headquartered in Saskatchewan to achieve corporate-wide ISO 14001 registration.

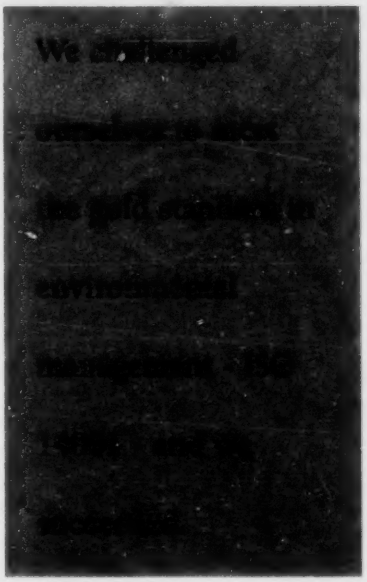
ISO 14001 is part of the ISO 14000 series of best practices developed by the International Organization for Standardization (ISO) and supported by governments and industries in more than 90 countries worldwide. ISO 14001 defines the elements of a sound environmental management system (EMS), providing a framework for environmental management, measurement, evaluation, auditing and continuous improvement. Our employees will continue to drive our ISO 14001 success and we have an ongoing commitment to support and further develop their expertise through training.

The issue of climate change is emerging as one of the most controversial of our times. We know that burning fossil fuels to generate electricity is contributing to the concentrations of greenhouse gases, the naturally occurring gases such as carbon dioxide, methane and nitrous oxide that

Employees across the corporation worked together to achieve our ISO 14001 registration in October 2000. (L to R) Robert Stedwill, manager, Environmental Programs; Patricia Youzwa, vice-president, Corporate Planning and Regulatory Affairs; Glenda Barton, environmental management system specialist; and John Wright, president and CEO, SaskPower, were on hand to celebrate SaskPower's achievement.

trap heat in the lower atmosphere. These gases may ultimately have a long-term warming impact on climate around the world.

While the global debate continues regarding the issue and possible solutions, SaskPower is taking steps to reduce greenhouse gas emissions as we work to balance Saskatchewan's energy needs with a sustainable environment.



We're improving the efficiency of our generating stations, including expanding our use of natural gas as an alternative fuel to coal. We invest in a number of projects outside of our operations that are designed to offset or reduce greenhouse gas emissions. We've entered into an agreement to supply wind power to federal government buildings in Saskatchewan, and we're working to help our customers reduce their costs through increased energy efficiencies. And, because education drives change, we conduct workshops across the province to raise awareness about climate change and encourage employees and the public to implement simple energy conservation measures into their daily activities.

SaskPower was one of the first corporations to take voluntary action to limit or reduce greenhouse gas emissions through Canada's Voluntary Challenge and Registry. As required by the Kyoto Protocol, we aim to reduce greenhouse gas emissions to 6 per cent below 1990 levels by the 2008-2012 commitment period.

Utilities are talking a lot about cogeneration these days – and for good reason. A cogeneration facility uses a single fuel source, often natural gas, to simultaneously produce electricity and steam. From an environmental perspective, this efficient use of fuel translates into significantly lower greenhouse gas emissions than equivalent generation from a coal-fired station.

SaskPower has several cogeneration initiatives underway. We have a 25-year agreement with TransAlta and Husky Oil to buy 210 MW of electrical capacity annually from the Meridian cogeneration facility near Lloydminster, which began commercial operation in December 1999.

Our development arm, SaskPower International, is partnering with ATCO Power of Alberta to develop a cogeneration and combined-cycled facility at the Potash Corporation of Saskatchewan (PCS) Cory Mine site near Saskatoon. The project will add 228 MW to Saskatchewan's electricity supply, beginning in 2002, with greenhouse gas emissions expected to be 55 per cent less than emissions from similar coal-fired stations.

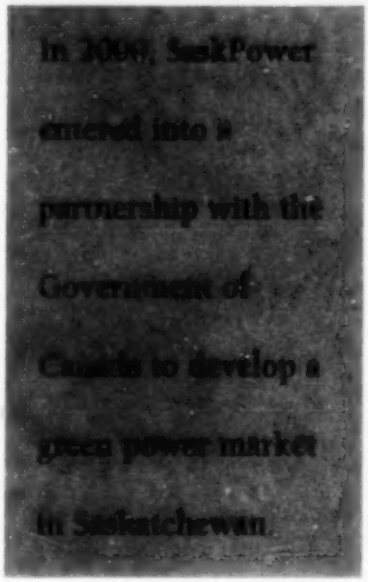
We also announced plans in 2000 to install natural gas-fired generation technology at our Queen Elizabeth Power Station in Saskatoon to improve the facility's generating efficiency and contribute to a long-term reduction in greenhouse gas emissions. The upgrade will provide 150 MW of new capacity and increase the station's efficiency by 50 per cent.

SaskPower is helping customers achieve environmental and economic benefits as well. In an increasingly competitive marketplace, customers are looking for new and innovative ways to make an impact where it counts – the

bottom line. We've developed a suite of value-added products and services, Energy Solutions, to help our commercial, industrial and institutional customers increase their profit margins by reducing energy operating costs.

Our Energy Solutions package currently includes two products – transformer maintenance and energy performance contracting (EPC). We've teamed up with an industry expert, Honeywell Ltd., to offer EPC. By assessing a facility's total energy consumption and recommending efficiencies, the EPC team can generate guaranteed savings for customers of between 15 and 35 per cent.

EPC is expected to save millions of dollars in energy costs for the Government of Saskatchewan. Up to 70 provincial government buildings will be audited for potential energy savings over the next five years. We anticipate that heating, cooling, lighting and water system upgrades will reduce energy consumption in these facilities by 20 per cent. Using less electricity could generate savings of more than $1.5 million for the government annually once the program is complete.



Offset projects are another way that SaskPower works to reduce greenhouse gas emissions and they are a significant part of our climate change strategy. An offset removes or sequesters greenhouse gas emissions outside of the normal operations of our facilities. In 2000, SaskPower continued working toward finding and acquiring new carbon offset opportunities. These offsets typically consist of emission reductions, emission avoidance and carbon sequestration activities.

Our largest offset project is a northern forest initiative with Saskatchewan Environment and Resource Management (SERM) that will see an estimated five million seedlings planted over the next four years.

SaskPower will purchase six million tonnes of carbon credits (the equivalent of 22 million tonnes of carbon dioxide) from SERM to offset the greenhouse gas emissions from our operations. This purchase is part of a system to credit early action prior to the first Kyoto Protocol commitment period (2008-2012) as a further incentive to reduce greenhouse gas emissions. Reforestation offers important offset benefits because a mature tree, 40 to 50 years of age, can sequester 50 to 100 kilograms of carbon per year.

Another key element of our offset strategy is the research and development of new technologies. Boundary Dam Power Station is a technology demonstration plant for the new International Test Centre for Carbon Dioxide Capture at the University of Regina. The International Test Centre will develop short-term and medium-term technologies to mitigate greenhouse gas emissions, especially those produced by the energy sector.

SaskPower is also a major contributor to the Prairie Soils Carbon Balance Project and the Canadian Agricultural Energy End-Use Data and Analysis Centre (CAEEDAC) at the University of Saskatchewan. The prairie soils initiative is investigating the science of measuring, monitoring and verifying carbon sequestration in agricultural soil through sustainable agricultural practices. The potential for additional carbon storage in

the soil through practices such as direct seeding and zero-tillage ranges from 1.5 to 5 tonnes of carbon dioxide equivalent per hectare. Given the substantial amount of agricultural land in Saskatchewan, this type of carbon sequestration could play a large role in reducing the province's greenhouse gas emissions.

CAEEDAC is currently studying renewable energy options, as well as the possibility of increasing carbon sequestration in land that was mined and later reclaimed by SaskPower.

SaskPower is working with a consortium of utilities that rely heavily on coal for power generation, and other interested parties, to examine the feasibility of new coal combustion technologies. These technologies may help reduce Canada's emissions of greenhouse gases from power generation, enabling utilities to continue using this reliable, low-cost fuel.

One of the most promising renewable energy sources is wind power, and this year, we entered into a partnership with the Government of Canada to develop a green power market in Saskatchewan. As the country's largest enterprise, the federal government uses a considerable amount of energy for its buildings, resulting in significant greenhouse gas emissions. Through this joint initiative, half of the electricity consumed by federal buildings in Saskatchewan will be generated by wind power, beginning in 2001. The federal government will contribute $12.4 million over 10 years, representing the largest single purchase of green power in Canada to date. SaskPower will provide at least 25,000 megawatt-hours of wind power annually, stepping up our efforts to address climate change.

Another important partnership for us is our work with the Action By Canadians (ABC) program, a unique education initiative designed to encourage Canadians to take personal action to reduce greenhouse gas emissions. As a committed ABC partner, we bring the climate change message to our employees and customers through interactive workshops. Participants are encouraged to make a personal pledge to reduce greenhouse gas emissions at home, at work and on the road. We hosted 13 ABC workshops across the province in 2000.

Our employees in the Regina area participated once again this year in the City of Regina's Cool Down The City Challenge. The challenge? Find creative and environmentally friendly ways to get to work for five days. Approximately 10 per cent of the employees located at the SaskPower head office, Regina Region and Operations Support offices, participated in the program to help the City of Regina reduce carbon dioxide emissions by walking, car pooling or taking public transit to work.

SaskPower continues to take an active role in the national Action by Canadians (ABC) program, a climate change education program developed by the Energy Council of Canada. We're proud to report that Sheila Harlos, Policy & Issues coordinator in our Corporate Planning & Regulatory Affairs group, was named ABC Coordinator of the Year in 2000 for her work in managing the ABC program at SaskPower.

The power *of* *partnerships*

At SaskPower, we believe in the power of partnerships, because protecting and enhancing our environment is a responsibility we all share. We participate in a number of initiatives to support that shared commitment, from tree planting and educational programs to technological innovations and habitat protection.

SaskPower is partnering with a leading environmental organization, Ducks Unlimited Canada (DU), to protect and enhance Saskatchewan's wildlife habitat. We became DU's first Diamond Legacy sponsor in 1997, establishing a $1 million, 30-year trust that guarantees a minimum annual income of $100,000 for conservation projects.

Working together, we identify opportunities to preserve habitat, safeguard wildlife and promote awareness and action on these important issues.

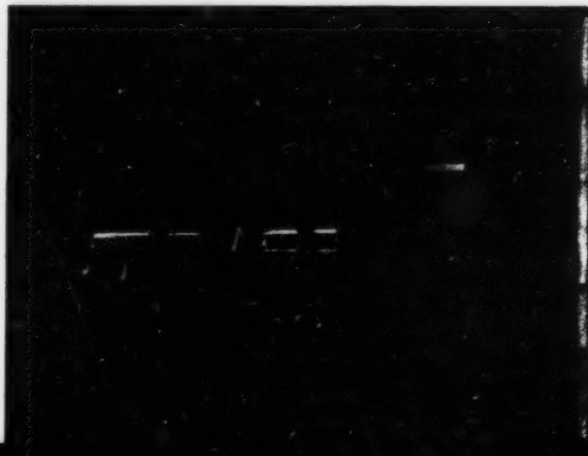
At the 2000 Farm Progress Show in Regina, we introduced a flushing bar that enables farmers to substantially reduce wildlife injuries and death during haying operations. The device is mounted well ahead of the mower and flushes nesting birds and other wildlife out of harm's way, reducing mortality from 40 or 50 per cent to near zero.

Developed by DU and partners over the past several years with financial support from SaskPower, this innovative solution is being well received by farmers, who previously had no way of preventing these incidents. Field trials indicate that most producers are willing to adapt to the minor inconvenience of the flushing bar to protect wildlife on their property. The flushing bar is offered at no cost to farmers in key waterfowl-producing areas of Saskatchewan.

Saskatchewan's wetlands are a vital link in our ecosystem. In addition to providing food and shelter for a variety of birds and animals, wetlands contribute to a reliable source of clean water for many communities and farm families. Our partnership has made a number of wetlands projects possible, including the establishment of a duck nesting habitat and research station near the Allan Hills and research into carbon sequestration in wetlands.

"The flushing bar is a reasonable investment to save the lives of nesting ducks. A hen flushed out of a hayfield will often re-nest in another place. Saving her life means she'll produce ducklings for years to come."

Pat Kehoe, Ducks Unlimited manager of conservation for the prairie region



We're also working to educate young people through DU's Wetlands are Wonderlands school program. Elementary school students discover the beauty of Saskatchewan's marshes first-hand, learning why wetlands are important and how these areas are at risk due to increased drainage and invasive plant species. Students discover how to prevent the spreading of plants that endanger wetlands, such as purple loosestrife, and can participate in cleaning up wetlands across the province.

This program, which began as a small project in Saskatoon and North Battleford, was expanded in 1999 through SaskPower's initial support of $20,000. With our $50,000 contribution in 2000, DU was able to offer Wetlands are Wonderlands to more than 250 public school classes, twice the number of classes from the year before.

Another valued partnership is the memorandum of understanding (MOU) we signed with Nature Saskatchewan in 2000 to formalize and strengthen our shared commitment to help the environment. We're working closely with this respected organization to develop and deliver grassroots initiatives like PlantQuest, a series of workshops that builds on the successful BirdQuest program. SaskPower donated $4,000 in sponsorship of these programs in 2000.

PlantQuest is relevant for people of all ages, but particularly for young people. Our youth are the decision-makers of tomorrow and they need to be knowledgeable about environmental issues. Through PlantQuest and BirdQuest, young people learn about different species of plants and birds, including how to identify them, where they can be found and their importance to the environment.

One of the most innovative places to learn about the natural world is the Saskatchewan Science Centre, and SaskPower has been a partner in this popular attraction since it opened in 1989. SaskPower acquired the historic powerhouse from the City of Regina in 1965 and we operated it as a generating facility until the late 1970s. We were on board from the beginning when the push began to develop a world-class science centre for the people of Saskatchewan. In 2000, we announced a donation of $500,000 to assist the Science Centre with its multi-faceted plan to enhance its facilities and programming.

Another significant partnership for SaskPower is the work we've undertaken with SERM and SaskWater to identify and resolve environmental issues on the Saskatchewan River associated with our hydro operations in northern Saskatchewan. We are a founding member of the Saskatchewan River Sturgeon Management Board, which followed up on a four-year study to examine declining commercial fishery and domestic stocks and promote sturgeon recovery. A vital part of the river's ecosystem, these ancient fish can weigh in at 140 kilograms and live more than 150 years. We continue to support a spawning camp on the Saskatchewan River at Cumberland House, which successfully released 22,000 sturgeon fry into the river in 2000.

On a national level, SaskPower has proudly supported the Harmony Foundation of Canada since 1995. Harmony's scholarship program brings together educators from around the world to discuss environmental issues and initiatives. The Harmony Foundation has earned international acclaim from the United Nations and Commonwealth Federation for its work in

providing a venue that promotes global understanding regarding the environment. We award a pair of leadership training scholarships each year, enabling two Saskatchewan teachers to participate in this important information-sharing experience. In 2000, SaskPower and the University of Regina hosted the Harmony Foundation's Tools for Action, a program designed for Canadian Communities and Climate Change.

Through our habitat offset management program, we work to actively preserve and restore natural habitat in Saskatchewan to offset any land taken out of its natural state as a result of our operations. The Quill Lakes solar panel project and the SaskPower constructed wetland are prime examples of how we're working to reduce our impact on the environment.

In partnership with other electric utilities across Canada, we also continue to participate in the Environmental Commitment and Responsibility (ECR) program. Initiated by member utilities of the Canadian Electricity Association, the program aims to improve trust and enhance credibility with governments, employees, customers and the general public with respect to environmental issues.

The simple act of planting a tree is one way that we can all minimize our environmental footprint. SaskPower Shand Greenhouse has been in operation since 1991, drawing excess heat from the nearby Shand Power Station to provide a year-round growing environment for trees, shrubs and native plant species. In 2000, we produced almost 360,000 seedlings, with our total to date nearing 2.4 million. We work with TREEmendous Saskatchewan and other planting partners to deliver seedlings to groups and individuals province-wide.

In 2000, Shand Greenhouse and TREEmendous invited schools, communities and environmental organizations to celebrate the new millennium and Saskatchewan's upcoming centennial in 2005 with a special planting project.

Communities across Saskatchewan committed to plant 2,000 tree and shrub seedlings over the next five years to establish a legacy for the new century – a Millennium Grove. Students in Moose Jaw were the first to plant a grove, followed by participants in Caron, Elbow, Esterhazy, Saltcoats, St. Walburg, Weyburn, Saskatoon and Cypress Hills Interprovincial Park.

In a second millennium project, Shand Greenhouse grew 8,000 paper (white) birch, our provincial tree, for distribution through SaskPower's customer service offices. Native to Saskatchewan's northern forests, the paper birch is a rapidly growing tree known for its distinctive outer bark, which peels like paper.

Shand Greenhouse staff are also actively involved in education outreach – hosting students at the greenhouse, visiting classrooms and using the power of the Internet to grow awareness about the impact that electricity has on our environment and how trees can reduce greenhouse gas emissions.

Through our Power Planter Ambassadors program, we invite Grades 5 and 6 students to write essays about how tree planting benefits the environment. Students submit their essays on-line at Kids Corner, an interactive area at saskpower.com that introduces young people to environmental, safety and energy conservation issues. In addition to receiving a mountain bike and Power Planter fleece outerwear, contest winners receive large trees for planting in their schoolyards and a seedling for every student at their school.

Profile

Marty Lelliot

assistant manager, Shand Greenhouse

As the assistant manager of the Shand Greenhouse, Marty Lelliott's greatest satisfaction comes from stimulating the environmental awareness of the school children who regularly come to visit. In Marty's eyes, the educational value of the greenhouse and awakening young minds to responsible environmental stewardship is as important as that for which the greenhouse is best known – starting seedlings and distributing them at no cost to individuals and organizations for environmental projects across the province.

Marty has been there from the beginning. In 1991, he left a job at the Clearwater Forest Nursery in The Pas, Manitoba to become one of the first Shand Greenhouse employees. Since then, the Winnipeg native has played a major role, both in the development of the greenhouse and in the growth of over 2 million trees, shrubs and plants that established their roots at the Estevan-area facility.

Although Marty's primary responsibility is overseeing greenhouse operations, it's not unusual to find the Honours Bachelor of Science graduate immersed in a multitude of day-to-day tasks. From hosting tour groups to developing strategic plans to sweeping the floors, it's the ever-changing, ever-challenging nature of the work that continues to hold his enthusiasm. Currently, Marty and the greenhouse staff are working on developing reliable growing regiments for native plant species and promoting their value in reclamation projects.

As for the hundreds of thousands of seedlings that leave the greenhouse every year, Marty doesn't mind telling you that he thinks about them occasionally. Like a proud father learning of the success of his children, Marty is encouraged when he hears that the Shand Greenhouse trees are thriving across Saskatchewan.

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Our Year *in review*

SaskPower operates 14 generating stations, including both thermal (fossil-based) and hydro electric facilities with a net installed capacity of 2,889 MW. SaskPower also maintains over 150,000 kilometres of transmission and distribution lines, serving more than 431,000 residential, commercial, industrial and farm customers over a half a million square kilometres.

Emissions

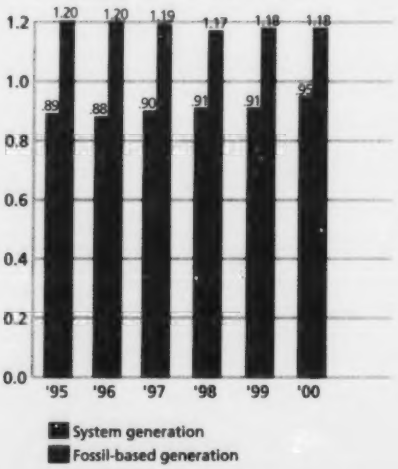
Carbon dioxide (CO_2) is believed to be the greenhouse gas (GHG) primarily responsible for global warming. Therefore, greenhouse gases are often referred to as CO_2 equivalent (CO_2e), which is used to track the level of net greenhouse gases released into the atmosphere each year.

SaskPower's 2000 greenhouse gas emissions, including reductions and offsets, totaled 13,749,470 tonnes of CO_2e. Our 2000 GHG emissions consisted of 99.3 per cent CO_2, 0.7 per cent nitrous oxide (N_2O), and small amounts of methane (CH_4). As required by the Kyoto Protocol, we aim to reduce greenhouse gas emissions to 6 per cent below 1990 levels by the 2008-2012 commitment period.

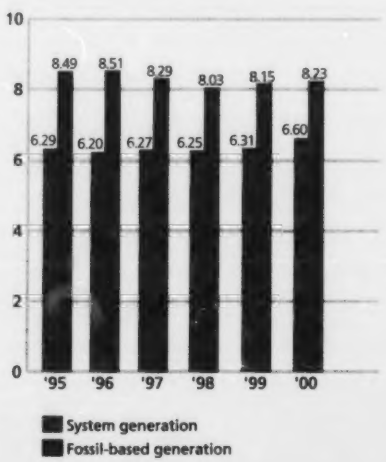
The emission intensities of CO_2, sulphur dioxide (SO_2), nitrogen oxides (NO_x), and particulates are determined by dividing total emissions by our net generation for the year. In any given year, system generation intensity levels will vary with the availability of hydroelectric generation (see intensity levels below).

Fossil fuel-based generation is responsible for the release of SO_2 and NO_x, otherwise known as acid gases. These gases combine chemically with

CO_2 emissions
Net generation intensity (kg/kW.h)



SO_2 emissions
Net generation intensity (g/kW.h)



moisture in the air and fall back to earth as acid rain, snow or fog. SaskPower is taking the initiative to reduce acid gas emissions. At Shand Power Station, for example, the LIFAC process (Limestone Injection into Furnace and reActiviating of Calcium) is used for removal of SO_2 emissions. At Poplar River Power Station, burners have been installed with modifications in generating units to reduce NO_x emissions.

Coal-fired generating stations also release ash particles (or particulates) into the atmosphere. In partnership with SERM, priority has been given to the installation of electrostatic precipitators (ESPs) for the reduction of particulate emissions at Boundary Dam Power Station.

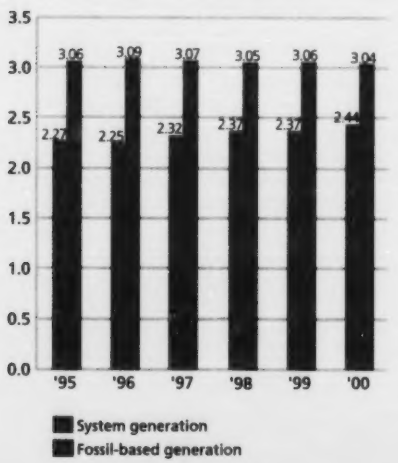
Electrostatic precipitator installation continues at Boundary Dam with Unit 3 ESP beginning operation in 2000. Also, enhancements were made to the existing Unit 6 ESP to improve its performance. The electrostatic precipitators at Boundary Dam are designed to a standard of 0.1 lb/MMBtu (million British thermal units). The use of ESPs has made possible the collection of flyash, which can be used as a cement replacement for mine backfill and oil well remediation. In 2000, SaskPower sold over 45,250 tonnes of flyash.

Greenhouse gas emissions - Actual and Forecasted (thousands of CO_2e tonnes)

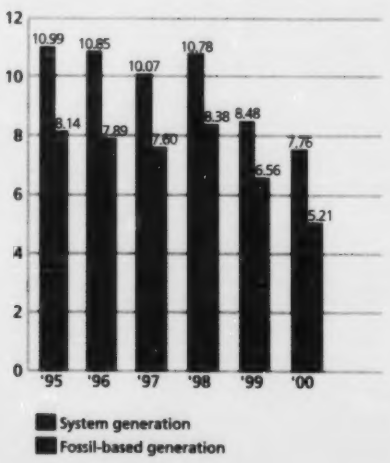
	1990	1991	1992	1993	1994	1995	1996	1997
Emissions	10,877	10,859	12,437	12,872	13,976	14,084	14,108	14,739
Offsets & Reductions	10	18	124	222	235	257	331	453
Net emissions	10,867	10,841	12,313	12,650	13,741	13,827	13,777	14,286
	1998	**1999**	**2000**	**2001**	**2002**	**2003***	**2004**	**2005**
Emissions	15,089	14,842	14,591	14,262	14,439	14,134	14,395	14,474
Offsets & Reductions	492	528	842	902	957	3,132	3,137	3,189
Net emissions	14,597	14,314	13,749	13,360	13,482	11,002	11,258	11,285

* Northern forest initiative: Offsets of 2,000,000 tonnes/year from 2003-2012.

NO_x emissions
Net generation intensity (g/kW.h)



Particulate emissions
Net generation intensity (g/kW.h)



Our Year *in review*

SaskPower operates 14 generating stations, including both thermal (fossil-based) and hydro electric facilities with a net installed capacity of 2,889 MW. SaskPower also maintains over 150,000 kilometres of transmission and distribution lines, serving more than 431,000 residential, commercial, industrial and farm customers over a half a million square kilometres.

Emissions

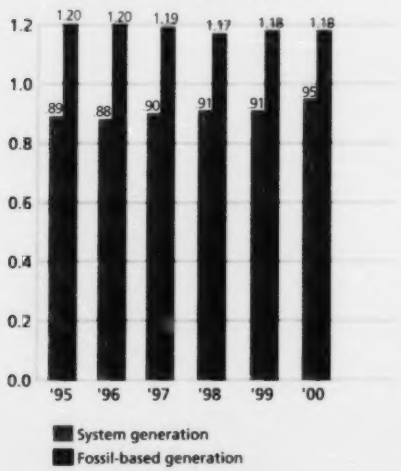
Carbon dioxide (CO_2) is believed to be the greenhouse gas (GHG) primarily responsible for global warming. Therefore, greenhouse gases are often referred to as CO_2 equivalent (CO_2e), which is used to track the level of net greenhouse gases released into the atmosphere each year.

SaskPower's 2000 greenhouse gas emissions, including reductions and offsets, totaled 13,749,470 tonnes of CO_2e. Our 2000 GHG emissions consisted of 99.3 per cent CO_2, 0.7 per cent nitrous oxide (N_2O), and small amounts of methane (CH_4). As required by the Kyoto Protocol, we aim to reduce greenhouse gas emissions to 6 per cent below 1990 levels by the 2008-2012 commitment period.

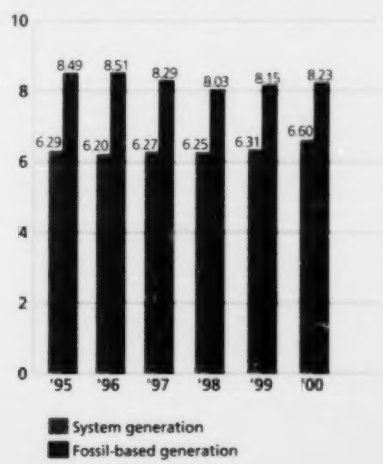
The emission intensities of CO_2, sulphur dioxide (SO_2), nitrogen oxides (NO_x), and particulates are determined by dividing total emissions by our net generation for the year. In any given year, system generation intensity levels will vary with the availability of hydroelectric generation (see intensity levels below).

Fossil fuel-based generation is responsible for the release of SO_2 and NO_x, otherwise known as acid gases. These gases combine chemically with

CO_2 emissions
Net generation intensity (kg/kW.h)



SO_2 emissions
Net generation intensity (g/kW.h)



moisture in the air and fall back to earth as acid rain, snow or fog. SaskPower is taking the initiative to reduce acid gas emissions. At Shand Power Station, for example, the LIFAC process (Limestone Injection into Furnace and reActivating of Calcium) is used for removal of SO_2 emissions. At Poplar River Power Station, burners have been installed with modifications in generating units to reduce NO_x emissions.

Coal-fired generating stations also release ash particles (or particulates) into the atmosphere. In partnership with SERM, priority has been given to the installation of electrostatic precipitators (ESPs) for the reduction of particulate emissions at Boundary Dam Power Station.

Electrostatic precipitator installation continues at Boundary Dam with Unit 3 ESP beginning operation in 2000. Also, enhancements were made to the existing Unit 6 ESP to improve its performance. The electrostatic precipitators at Boundary Dam are designed to a standard of 0.1 lb/MMBtu (million British thermal units). The use of ESPs has made possible the collection of flyash, which can be used as a cement replacement for mine backfill and oil well remediation. In 2000, SaskPower sold over 45,250 tonnes of flyash.

Greenhouse gas emissions - Actual and Forecasted (thousands of CO_2e tonnes)

	1990	1991	1992	1993	1994	1995	1996	1997
Emissions	10,877	10,859	12,437	12,872	13,976	14,084	14,108	14,739
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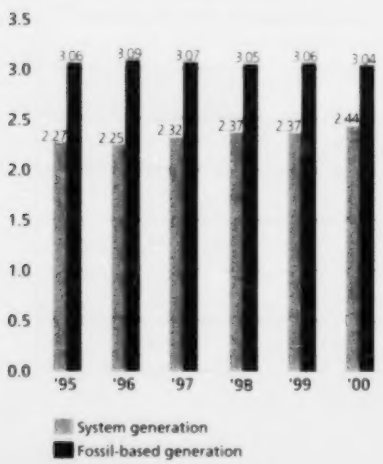
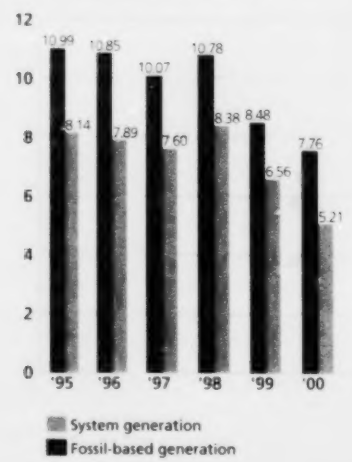
Net generation intensity (g/kW.h)



Particulate emissions

Net generation intensity (g/kW.h)



PCBs and spills

Current legislation requires that spills of hazardous substances, including PCBs, be reported to SERM. Legislation defines a spill by type, volume and location. SaskPower had 21 spills in 2000. The impact of these spills was either negligible, mitigated in an acceptable fashion, or will be mitigated in the future upon decommissioning of facilities.

We utilize our regional storage sites for consolidation of our PCB waste prior to disposal. There were 234 items of PCB waste, including transformers, drums and other containers, in storage at the end of the year. During the year, 509 items of PCB waste were contracted for disposal.

Screening and field assessments

To ensure compliance with provincial and federal impact assessment and other environmental legislation, SaskPower screens all generation, transmission and distribution projects before construction begins. If environmentally sensitive lands are potentially impacted or affected, project plans are referred to SaskPower Environmental Programs for review. Projects are examined to determine if permits or field assessments are required for lands where there is a potential for environmental disturbance, or if more complex environmental reviews by government agencies are required.

There has been a noticeable increase in project referrals since the delivery in 1997 of the environmental screening training course to regional and district transmission and distribution staff, which facilitated increased use of SaskPower's environmental screening database. The increase in project referrals in 2000 was particularly dramatic, rising from 114 projects the previous year to 255 new projects (see Project Referrals graph on page 15). This can be attributed partly to economic factors such as increased activity in the oil and gas sector. The ISO 14001 registration process also played a part in the acceleration of project referrals in 2000.

In 2000, there were 33 construction projects which required field assessments to further investigate the potential for environmental disturbance. One of the major field assessment initiatives was the impact assessment of the Prince Albert–Timber Cove Stage 1 (Phase II) transmission line, needed to provide a reliable supply of power to area residents north of

Number of reportable spills

	Oil spills	PCB contaminated oil spills (≥ 5ppm)	Other spills	Total spills
1990	9	35	2	46
1991	8	32	2	42
1992	7	18	1	26
1993	8	16	3	27
1994	10	15	1	26
1995	2	13	3	18
1996	3	11	4	18
1997	6	8	2	16
1998	10	6	7	23
1999	6	9	4	19
2000	8	6	7	21

Prince Albert. SaskPower commissioned extensive biophysical and heritage field studies to assist in determining the best route for the 138 kV line. Analysis of these studies and route selection will continue into 2001.

Site assessments

Site assessments are conducted prior to the sale, purchase or lease of property, or as a result of potential contamination identified during an environmental audit. If necessary, site remediation is initiated once the assessment process has been completed. Major facilities undergo a formal decommissioning process that includes site assessment and remediation.

Rosetown Warehouse

The Rosetown Warehouse property is the site of former coal and diesel power stations. The 1999 Phase II environmental site assessment defined concentrations of petroleum hydrocarbons and metals in the soil above acceptable criteria. Plans for remediation were agreed upon with SERM and the Town of Rosetown in 2000. Remediation was implemented and planned for completion the same year, involving excavation of the affected soil and placing it at the south Rosetown landfill for land farming. Post-remediation testing has confirmed that concentrations of petroleum hydrocarbons remain above criteria in one corner of the property. Further consultation and investigation is necessary.

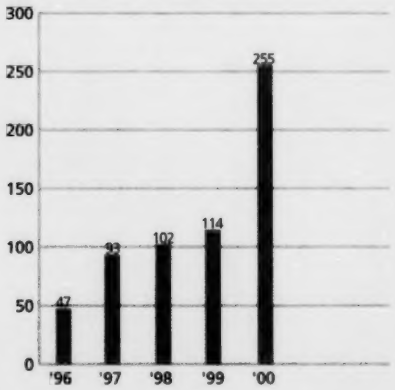
Shellbrook District Warehouse

This site served as the location of a small diesel fuelled electrical generating station. Subsurface contamination with petroleum hydrocarbons was first identified in 1997. Subsequent testing indicates that the contamination is localized on the property, but has migrated to a shallow water table. Further investigation is necessary to evaluate management options.

Yorkton Service Centre

The Yorkton Service Centre building and property was the site of a diesel-fueled electrical generating station from 1913 until it was converted to a service centre in the early 1960's. Subsurface contamination with petroleum hydrocarbons was identified on the property and on the neighbouring property to the west in 2000. A Phase II environmental site assessment to characterize and delineate the contamination was started later in the year with completion scheduled for 2001.

Project referrals



Project referrals and field assessments (2000)

	Referrals	Field Assessment
Generation	1	0
Transmission	11	7
Distribution	242	26
Fibre-optics	1	0
Total	255	33

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Shellbrook Diesel Warehouse

This site served as the location of a small diesel fuelled electrical generating station. Subsurface contamination with petroleum hydrocarbons was first identified in 1997. Subsequent testing indicates that the contamination is localized on the property, but has migrated to a shallow water table. Further investigation is necessary to evaluate management options.

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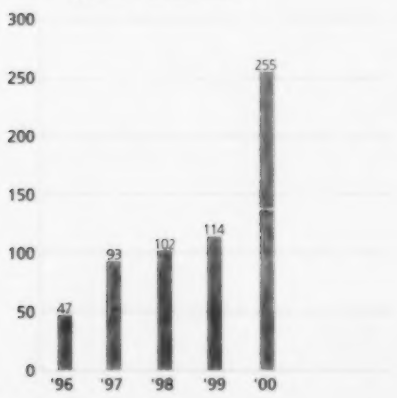

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Allan Town Substation

The site assessment conducted in 1999 identified elevated concentrations of lead in the soil. A clean-up plan was prepared and approved by SERM and the Town of Allan. In accordance with the plan, the lead-contaminated soil was removed from the site and placed at the Allan Town landfill.

Estevan District Office

Several lots were purchased across from SaskPower's district office in Estevan for equipment storage and parking. Prior to the land purchase, a Phase II environmental site assessment of the property was conducted, which helped minimize environmental concerns related to the purchased property.

Fuel Storage Tank Decommissioning

Fuel storage tanks were removed at three locations in 2000. In Biggar, three underground storage tanks were removed from below the concrete floor of a storage building. The building was a former diesel generating station. In Regina, an above-ground tank and two underground storage tanks were decommissioned at the System Control Centre. Lastly, an underground gasoline tank was removed from a farm site near Estevan. The site was purchased to facilitate Luscar's coal mining operations.

In each case, a decommissioning plan was prepared and submitted to SERM for approval. The decommissioning operations were conducted in accordance with the Hazardous Substances & Waste Dangerous Goods Regulations. Soil samples were taken at each site. Some quantity of hydrocarbon-contaminated soil was found at Biggar and the System Control Centre. This material was removed by a licensed contractor and taken to an authorized disposal site for land-farming.

Property Releases

Ten other properties were assessed prior to being released for sale or returned to the lessor. These properties included substations, warehouses and offices. Soil samples collected at the sites were analyzed for PCBs, hydrocarbons, and metals. At two of the sites, some remediation is necessary before the properties can be released.

Property Acquisitions

Eleven other properties were assessed prior to finalizing the lease or the purchase agreements.

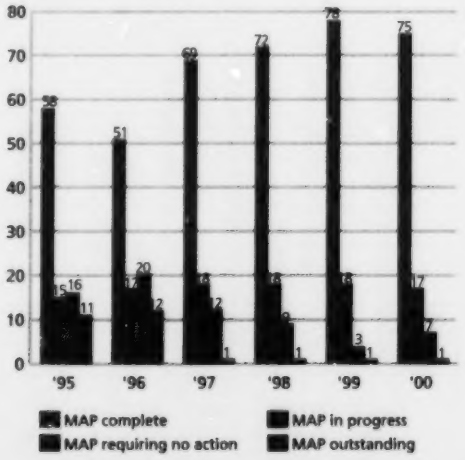
Facility audits

Since 1991, SaskPower has maintained a program to audit generation, transmission and

Environmental screening training
(number of participants)

			2000
56	130	76	287

Facility compliance audit
(per cent)



distribution facilities. As an outcome of the facility audits, management action plans (MAP) with implementation schedules have been developed annually to ensure timely resolution of audit observations. Progress on the management action plans is reported semi-annually to the Audit and Finance Committee of the Board of Directors. Facility audits were completed for the Regina, Saskatoon, and Weyburn regions as a part of the three-year cycle of rotating audits.

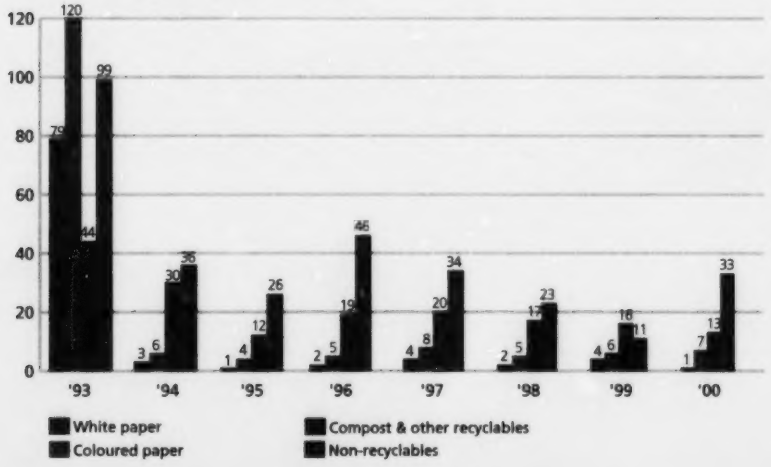
Materials management

Through the Zero G waste management program, SaskPower employees have recycled several thousand tonnes of paper and other waste products. The five R's of waste management (rethink, reduce, reuse, recycle and recover) are carried out at SaskPower offices, generating stations and facilities across the province. In 2000, we recycled approximately 57,900 kg of paper from our head office in Regina. Since the inception of the Zero G program in 1993, summer students have conducted audits each year at about 60 SaskPower facilities throughout the province. Students have also conducted audits at our head office to determine the effect that the program is having on quantities of material sent to the landfill.

Zero G has been set in motion throughout SaskPower. Boundary Dam Power Station, for example, recycled 9,725 kg of white and coloured paper (an increase of approximately 2,000 kg from the previous year), 875 kg of cardboard and 2,225 kg of newsprint. Boundary Dam has also accounted for the recycling of over 550 tonnes of scrap metal. The vermicomposting project continues at Boundary Dam, successfully diverting over 150 kg of food waste away from the local landfill in 2000.

As part of our commitment to the recovery and conservation of resources and materials throughout our operations, SaskPower reviews all potential purchases with regard to the possible environmental implications of various products and services. Recommendations are provided covering possible regulatory constraints and alternative products or services that may reduce environmental impacts. These are included in final tendering and purchasing decisions.

Zero G head office
waste management program audit (kg)



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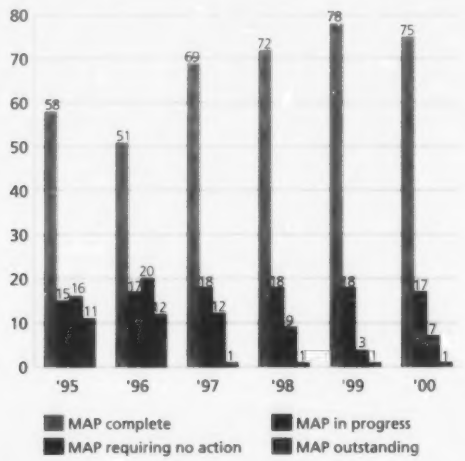

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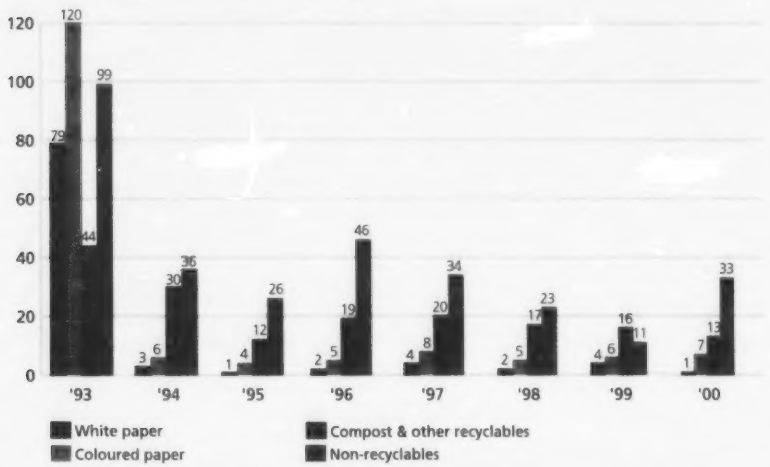

Environmental management system (ISO 14001)

SaskPower is the first electrical utility in Canada, and the first major business headquartered in Saskatchewan, to achieve corporate-wide ISO 14001 registration. ISO 14001 is part of the ISO 14000 series – an initiative developed by the International Organization for Standardization (ISO), and supported by governments and industries in more than 90 countries worldwide. The Quality Certification Bureau, an international quality and environmental systems registrar based in Edmonton, completed a series of independent audits at SaskPower work sites across the province in 2000, and awarded SaskPower with the ISO 14001 designation.

The core of the ISO 14000 series is ISO 14001, a standard that defines the elements of a sound environmental management system (EMS). Ultimately, the initiative provides a framework for environmental management, measurement, evaluation, auditing and continuous improvement. ISO 14001 is a best-practice management system. It requires that organizations make a commitment to comply with legal and other requirements, foster environmental protection, and work to continually improve their EMS.

Environmental awareness training

		2000
Number of participants	983	815

In compliance with the ISO 14001 standard, SaskPower has implemented an environmental awareness training program for employees. The training program provides our 2,200 employees with an overview of the corporation's EMS and job-related environmental issues.

Our EMS defines and documents specific tasks, responsibilities, authorities and procedures to ensure that every employee is able to help minimize negative impact to the environment. It also ensures that these requirements are communicated throughout the corporation, and that our employees are effectively trained to fulfill their responsibilities.

The EMS provides an up-to-date account of the regulations and procedures associated with the numerous environmental operations and activities conducted throughout the corporation. It spells out, for instance, the policies and procedures for the maintenance of power line rights-of-way when federally-approved herbicides are used for the control of vegetation. In 2000, we continued our use of selective, non-residual herbicides for the control of vegetation on powerline rights-of-way throughout Saskatchewan.

As required by the ISO 14001 EMS, we have set out a procedure for responding to questions from customers, regulatory authorities, environmental agencies and the general public. We make available informational materials on electric and magnetic fields, and, upon request, take measurements of field levels in both the home and workplace.

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Glossary

Acid gases
The term used in reference to the release of sulphur dioxide (SO_2) and nitrogen oxides (NO_x) through the burning of fossil fuels.

Carbon dioxide equivalent (CO_2e)
A single unit of measurement used to calculate the impact of the various gases involved in global warming.

Carbon dioxide (CO_2) offsets
Initiatives designed to reduce net CO_2 from the burning of fossil fuels. Offsets are carried out independently of the source emissions.

Carbon sequestration
The enhanced removal and storage of carbon from the atmosphere through biological processes.

Cogeneration
The simultaneous production of electricity and steam from a single fuel source.

Electric fields
Invisible fields of force created by electric voltage, measured in volts/metre (V/m).

Electrostatic precipitator (ESP)
A device that removes particles of ash, dust, smoke and other elements from air and gas flows.

Flyash
Fine residue resulting from the combustion of pulverized coal used in many modern coal-fired generating stations.

Greenhouse gases (GHG)
Naturally-occurring gases such as carbon dioxide (CO_2), methane (CH_4) and nitrous oxide (N_2O) that trap heat in the earth's lower atmosphere.

ISO 14001
A standard that defines the elements of a sound environmental management system (EMS). The ISO 14000 series is a family of environmental management standards developed by the International Organization for Standardization.

Kilovolt (kV)
A unit of pressure, or push, of an electric current; 1,000 volts.

Kilowatt-hour (kW.h)
A unit of bulk energy; 1,000 watt-hours. The measurement is generally used for billing residential customers.

Magnetic fields
Invisible fields of force created by electric current, measured in microtesla (uT) or milligauss (mG).

Megawatt (MW)
A unit of bulk power; 1,000 kilowatts. The output of a commercial generator or power station is usually expressed in megawatts.

Particulates
Emissions of ash particles from the burning of fossil fuels.

Phase I site assessment
Includes a review of historical data and a site inspection to determine the potential for contamination.

Phase II site assessment
Includes obtaining soil and/or water samples to be analyzed.

Polychlorinated biphenyls (PCBs)
A regulated environmental contaminant present in some electrical equipment, including transformers and capacitors.

Site remediation
The elimination or minimization of environmental contamination or degradation that has already occurred.

SERM
Saskatchewan Environment and Resource Management

Solar panel
A device that converts sunlight to electricity for use as a power source.

Vermicomposting
Use of a special kind of earthworm to convert organic matter to compost.

We'd like *to hear from you*

To better meet your expectations and improve our environmental reporting, we invite you to complete this evaluation form and fax or mail it to:

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Environmental Programs
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Regina, SK S4P 0S1
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FAX: 306-566-3428

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Read our Environment Review on-line at www.saskpower.com

	Did you find this section of interest?		Did you find the information you wanted?		Rate the amount of information in each section.		
	yes	no	yes	no	too much	just right	not enough
The power of commitment	○	○	○	○	○	○	○
The power of partnerships	○	○	○	○	○	○	○
Employee profile	○	○	○	○	○	○	○
Our year in review							
-Emissions	○	○	○	○	○	○	○
-PCBs and spills	○	○	○	○	○	○	○
-Environmental assessments and audits	○	○	○	○	○	○	○
-Materials management (recycling)	○	○	○	○	○	○	○
-ISO 14001	○	○	○	○	○	○	○

Do you have any comments or suggestions regarding our Environment Review?